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(54) Title: PROTEIN WITH ACTIVITY OF HYDROLYZING DEXTRAN, STARCH, MUTAN, INULIN AND LEVAN, GENE ENCODING THE SAME, CELL EXPRESSING THE SAME, AND PRODUCTION METHOD THEREOF

(57) Abstract: Disclosed is an enzyme, having the amino acid sequence of SEQ. ID. No. 1 with the activity of hydrolyzing dextran, starch, mutan, inulin and levan, a gene encoding the enzyme, and a transformed cell expressing the gene. Also disclosed is a method of producing an enzyme capable of degrading dextran, starch, mutan, inulin and levan, which comprises culturing the cell, expressing the enzyme in the cell and purifying the enzyme. A composition comprising the enzyme is provided for removing dextran or polysaccharide contaminants during sugar production. With such degradation activity, the enzyme not only finds various applications in the dental care industry, including anti-plaque compositions and mouthwashes, but is also useful in removing dextran or polysaccharide contaminants during sugar production.